

6

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/791,685	WEBB, JAMES	
	<b>Examiner</b>	<b>Art Unit</b>	
	Matthew O. Savage	1724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed on 7-5-06.
2. ☒ The allowed claim(s) is/are 1, 12, 38-40, 47, 51, 56, 52-55, 57, 63-71, and 75 renumbered 1-23, respectively.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

#### Attachment(s)

- |  |   |
|--|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 5. <input type="checkbox"/> Notice of Informal Patent Application                                 |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date _____    | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                               |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance              |
|  | 9. <input type="checkbox"/> Other _____.  |

Matthew O Savage  
Primary Examiner  
Art Unit: 1724

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. A. John Pate on 9-14-06.

1. (Currently Amended) A water treatment system for treating waste water, the water treatment system comprising:

a ~~primary~~ final water treatment station outputting treated water; and

a solid-based generator outputting aqueous sulfurous acid to the final water treatment station ~~the treated water;~~

a pump comprising a variable frequency drive, the pump generating a water flow from the final treatment station through the generator, and from the generator back to the final treatment station, the water flow being characterized in a flow rate;

a pH sensor to ascertain the pH of the treated water discharged from the treatment station; and

a control system connected to the pH sensor to receive a signal representative of the pH, compare the signal to a set point for a desired pH, and provide an output control signal to the variable frequency drive to vary the water flow rate and thereby control the concentration of sulfurous acid in the treated waste water.

Art Unit: 1724

12. (Currently Amended) The apparatus system of claim 1, ~~wherein the further~~  
comprising a primary water treatment station comprises settling tanks and holding cells,  
a secondary water treatment station to receive and process treated water from the  
primary water treatment station, and wherein the final water treatment station is a  
tertiary water treatment station to receive and process water from the secondary water  
treatment station.

38. (Currently Amended) A water treatment system for treating water,  
the water treatment system comprising:

a ~~primary~~ final water treatment station outputting treated water;

a solid-based generator outputting a stream of aqueous sulfurous acid into the  
treated water, the generator comprising a safety system for automatically closing an air  
inlet to the generator in the event a water flow through the generator is interrupted,  
wherein the safety system includes a valve on the air inlet and a hydraulic cylinder  
connected to the valve, wherein water pressure from said water flow causes the  
hydraulic cylinder to open the air inlet, and wherein the hydraulic cylinder is arranged to  
close the valve when said water flow is interrupted; and

a control system for monitoring the pH of the treated water to adjust a water flow  
rate through the generator to achieve a desired concentration of sulfurous acid in the  
treated water.

On line 1 of claims 39, 40, 51-57, and 63-71, "apparatus" has been changed to –  
system--.

47. (Currently Amended) The ~~apparatus~~ system of claim 38, ~~wherein the further comprising a primary water treatment station comprises settling tanks and holding cells, a secondary water treatment station to receive and process treated water from the primary water treatment station, and wherein the final water treatment station is a tertiary water treatment station to receive and process water from the secondary water treatment station.~~

75. (New) A water treatment system for treating waste water, the water treatment system comprising:

- a final water treatment station outputting treated water; and
- a solid-based generator outputting aqueous sulfurous acid to the final water treatment station;
- a pump comprising a variable frequency drive, the pump generating a water flow from the final treatment station through the generator, and from the generator back to the final treatment station.

Claims 13-15, 48-50, 73, and 74 have been canceled.

On line 23 of page 8, "know" has been changed to --known--.

On line 18 of page 9, "In one embodiment," has been changed to –The--, and "may include a" has been changed to –includes a final or--.

The following is an examiner's statement of reasons for allowance:

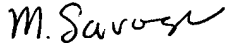
U.S. Patent 3,948,774 to Lindman taken in combination with U.S. Patent 5,948,261 to Pressley is considered the closest prior art with respect to claims 1 and 75, however, the references fail to teach or suggest the limitation of the pump generating a water flow from the final treatment station through the generator, and from the generator back to the final treatment station as recited in instant claims 1 and 75

U.S. Patent 3,948,774 to Lindman taken in combination with U.S. Patent 4,526,771 to Forbush et al is considered the closest prior art with respect to claim 38, however, the references fail to teach or suggest the limitation of the safety system including a valve on the air inlet and a hydraulic cylinder connected to the valve, the water pressure from the water flow causing the hydraulic cylinder to open the air inlet, and the hydraulic cylinder being arranged to close the valve when the water flow is interrupted as recited in claim 38.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Art Unit: 1724

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew O. Savage whose telephone number is (571) 272-1146. The examiner can normally be reached on Monday-Friday, 7:00am-3:30pm.

  
Matthew O Savage  
Primary Examiner  
Art Unit 1724

mos